UNITED STATES PATENT OFFICE.

ALFRED L. SIMPSON, OF NEW YORK, N. Y.

TRAVELING PLATFORM, GRATE, OR SURFACE.

No. 853,129. Specification of Letters Patent. Patented May 7, 1907.

Application filed March 19, 1907. Serial No. 363,273.

To all whom it may concern:

Be it known that I, ALFRED L. SIMPSON, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Traveling Platforms, Grates, or Surfaces, of which the following is a specification.

My invention relates to traveling platforms or surfaces, such as moving side-walks, escalators, or traveling furnace grates and the like; and it has for its object a platform or surface composed of numerous smaller surfaces or links so constructed that it may be readily assembled or linked together, be self-supporting, flexible and capable of being driven as an endless surface.

For this purpose my invention consists essentially of a platform or surface composed of a number of interlinking pieces provided with overlapping flat surfaces, each having a front coupling hook and a rear socket, the hook of one link being adapted to be laterally inserted into the socket of the next preceding link.

The nature of my invention will be best understood when described in connection with the accompanying drawings in which—

Figure 1 is a perspective view of a link. Fig. 2 is a side elevation showing an endless surface, such as a distilling grate of a furnace. Fig. 3 is an enlarged view of part of Fig. 2. Fig. 4 is a top view of a traveling surface. Fig. 5 is a sectional view of same on the line 5—5 Fig. 4.

Similar characters of reference designate corresponding parts throughout the several views.

Referring now to the drawings, 10 indicates one of the link pieces which make up the platform or surface. These link pieces are adapted to be laterally inserted and fit together as shown, forming a platform or surface upon which people or material may be carried; or, forming traveling grates upon which coal may be distilled as in smokeless combustion furnaces.

The link itself is shaped as shown in Fig. 1 having a front coupling hook 11 substantially cylindrical, and a rear socket 12 adapted to retain the coupling hook 11 of the next link, and conforming substantially to the shape of the hook 11. A tooth 13 is provided upon these links to allow them to be driven by a sprocket wheel 14 or the like.

The surface is formed from the individual links by driving them sidewise into one another, the front coupling hook of one fitting the rear socket of the next preceding link, as shown. The links may only be removed by driving them out laterally, and cannot be lifted out vertically. Sufficient clearance is left to allow the hooks to turn freely within the sockets; and in the case of a traveling grate to also take care of the expansion.

The grate may be made staggered as shown in Fig. 4 to prevent the formation of a continuous line of opening between adjacent series of links.

This form of traveling grate is particularly applicable to smokeless combustion furnaces as a traveling distilling grate.

Due to the peculiar over-lapping and interlinking construction, the grate is practically air tight. Or, holes may be provided as shown in one of the links Fig. 4 to supply air for combustion, if desired. It is very readily assembled; and a broken link may quickly and easily be replaced. There are also no bolts or the like required to hold the links together, but they are entirely interlinked and self-supporting and still retain a substantially smooth upper surface upon which people or materials may be carried. The surface is substantially closed whether it be traveling straight or in a curved direction.

I claim:—

1. A carrier comprising: a series of over-lapping, flat-topped links each having a front substantially cylindrical coupling hook; and a rear socket, of substantially the shape of said hook.

2. An endless traveling carrier comprising: a series of over-lapping links each having a front substantially cylindrical coupling hook; and a rear socket, of substantially the shape of said hook.

3. A traveling carrier comprising: a series of over-lapping links each having a front substantially cylindrical coupling hook; a rear socket of substantially the shape of said hook; and means adapted to be engaged by a driving mechanism.

4. A built up traveling carrier closing off ingress of air from below and comprising a series of over-lapping, flat-topped links each